

ER-2 #809 09/09/13 - 09/10/13

Aircraft: [ER-2 - AFRC #809](#) ([See full schedule](#))

Flight Number: 13-9063

Payload Configuration: SEAC4RS

Nav Data Collected: Yes

Total Flight Time: 8.1 hours

Submitted by: Chris Miller on 09/10/13

Flight Segments:

From:	EFD	To:	EFD
Start:	09/09/13 16:32 Z	Finish:	09/10/13 00:35 Z
Flight Time:	8.1 hours		
Log Number:	132301	PI:	Kent Shiffer
Funding Source:	Hal Maring - NASA - SMD - ESD Radiation Science Program		
Purpose of Flight:	Science		
Comments:	The objectives for this coordinated flight with the DC-8 were smoke over the Southeastern US, underflight of the Calipso satellite, and overflight of Aeronet sites on the Texas/Louisiana border and in Mississippi. All objectives were met, and all instruments were functioning.		

Flight Hour Summary:

	132301
Flight Hours Approved in SOFRS	166
Total Used	164.6
Total Remaining	1.4

132301 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
08/01/13	13-9048	Check	3	3	163	
08/02/13 - 08/03/13	13-9049	Science	6.5	9.5	156.5	
08/06/13 - 08/07/13	13-9050	Science	8.4	17.9	148.1	
08/08/13	13-9051	Science	7.2	25.1	140.9	
08/12/13	13-9052	Science	7.9	33	133	
08/14/13	13-9053	Science	6	39	127	
08/16/13	13-9054	Science	7.8	46.8	119.2	
08/19/13	13-9055	Science	8.1	54.9	111.1	
08/21/13	13-9056	Science	7.3	62.2	103.8	
08/23/13	13-9057	Science	7.7	69.9	96.1	
08/27/13	13-9058	Science	7.2	77.1	88.9	
08/30/13	13-9059	Science	7.4	84.5	81.5	
09/02/13	13-9060	Science	8.2	92.7	73.3	
09/04/13	13-9061	Science	8.4	101.1	64.9	
09/06/13 - 09/07/13	13-9062	Science	8	109.1	56.9	
09/09/13 - 09/10/13	13-9063	Science	8.1	117.2	48.8	
09/11/13 - 09/12/13	13-9064	Science	7.6	124.8	41.2	
09/13/13	13-9065	Science	8	132.8	33.2	
09/16/13	13-9066	Science	8	140.8	25.2	
09/18/13	13-9067	Science	7.9	148.7	17.3	

09/22/13	13-9068	Science	8.1	156.8	9.2
09/23/13	13-9069	Science	7.8	164.6	1.4

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

SEAC4RS - ER-2 #809 09/09/13 Science Report

Mission: SEAC4RS

Mission Summary:

Flight Report – SEAC4RS ER-2, **September 9, 2013**

Prepared by: Richard Ferrare (richard.a.ferrare@nasa.gov)

Purpose of flight: The science goals for this flight were to: 1) underfly CALIPSO and collect coincident data, 2) perform aerosol radiation studies over two mobile AERONET sites, 3) evaluate AERONET aerosol inversion retrievals, and 4) acquire high altitude data and profile data on return to Houston.

Pilot: Stu Broce

Takeoff: 11:32 CDT

Duration: 8.1 hours

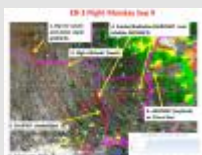
Notes:

ER-2 flew first toward southwestern Oklahoma and performed a dip down to about 45 kft to examine water vapor and ozone gradients. After this, the ER-2 climbed to nominal altitude of about 65 kft and proceeded toward the CALIPSO track. The ER-2 then descended to 63 kft and flew along the CALIPSO track from north to south, then reversed course and flew from south to north. Along the southern portion of the track cirrus clouds were observed but these dissipated before reaching the rendezvous point with the DC-8 and the mobile AERONET site set up along the CALIPSO track. The ER-2 then flew above the DC-8 radiation wall oriented along the principal plane above this AERONET site. There were scattered Cumulus clouds under this leg. The DC-8 then flew above the Leland AERONET site along the principal plane before flying over above the DC-8 above another mobile AERONET site located at Baskin, LA. This leg was also oriented along the principal plane. There were only a few small scattered Cumulus clouds located below the aircraft at this point. The ER-2 then flew back to Ellington and performed a spiral descent to 30 kft before landing. There were some small rain showers in the area near Ellington at the time of landing.

Aircraft and instruments: All instruments appear to have worked nominally as far as limited in-flight and quick-look analyses showed. All instruments are ready for the next flight.

Images:

ER-2 Sept 9



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File:



[seac4rs_er2_09_Sep.pdf](#)

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